CLAIMS

1. A master plate for fabricating a stamper plate for production of an optical storage medium with information such as a CD or a DVD, the master plate comprising a substrate and a photoresist layer provided thereon, while parts of the photoresist layer exposed to light of a predetermined frequency are soluble in a solvent, characterized in that the solubility exhibits a trend along the normal to the photoresist layer, the solubility on the side near the substrate being less than the solubility on the opposite, upper side of the photoresist layer.

2. A master plate according to claim 1, characterized in that said photoresist layer comprises a first subphotoresist layer provided, with or without an intervening adhesive layer, on the substrate, and a second subphotoresist layer which is provided on the first subphotoresist layer, the solubility in said solvent of exposed parts of the first subphotoresist layer being less than the solubility in the solvent of exposed parts of the second subphotoresist layer.

3. A master plate according to claim 1 or 2, characterized in that parts of the photoresist layer exposed to laser light of a frequency in the frequency band of 200-500 nm are soluble in the solvent.

4. A master plate according to any one of the preceding claims, characterized in that the solvent is an alkaline solvent.

5. A stamper plate for production of an optical storage medium with information such as a CD or a DVD, wherein the stamper plate is manufactured using a master plate according to any one of the preceding claims.

6. An optical storage medium with information such as a CD or a DVD, which optical storage medium has been manufactured by an injection molding process using the stamper plate according to claim 5.

7. A method for fabricating a master plate for fabricating a stamper plate, wherein on a substrate a photoresist layer is provided, wherein parts of the photoresist layer exposed to light of a predetermined frequency are soluble in a solvent, characterized in that the photoresist layer is provided by providing a first material and a second material on the substrate, such that the solubility of the photoresist layer on the side near the substrate is less than the solubility on the opposite, upper side of the photoresist layer.

8. A method according to claim 7, characterized in that the method further comprises the following steps:

- providing a first subphotoresist layer of the first material on a substrate, wherein exposed parts of the first subphotoresist layer have a first solubility in a solvent;
- providing a second subphotoresist layer of the second material on the first subphotoresist layer, wherein exposed parts of the second subphotoresist layer have a second solubility in the solvent, and wherein the second solubility is greater than the first solubility.

9. A method according to claim 8, characterized in that the method further comprises the following steps:

- providing directly on the substrate an adhesive such as n-(2-amino-ethyl)-3-aminopropyl-trimethoxysilane, hexamethyldisilazane (HMDS) and/or trimethylsilyldiethylamine (TMSDEA);
- providing a photoresist layer on the adhesive applied;
- allowing formation, through a crosslinking reaction between the adhesive and the photoresist layer provided directly thereon, of the first subphotoresist layer and, situated thereon, the second subphotoresist layer.

10. A method according to claim 9, characterized in that the adhesive, directly upon application, is rinsed with a rinsing agent such as water for a relatively short period of time.

11. A method according to claim 10, characterized in that the relatively short rinsing period with water takes 5 seconds at a maximum.

12. A method according to claim 8, characterized in that the first subphotoresist layer, after being applied, is given a treatment as a result of which the solubility in the solvent of exposed parts of the first subphotoresist layer decreases definitively.

13. A method according to claim 12, characterized in that the treatment consists in irradiating the first subphotoresist layer with UV light and/or in a heat treatment.

14. A method according to any one of claims 8-13, characterized in that the subphotoresist layers are exposed according to a predetermined pattern, after which the thus exposed parts are dissolved in the solvent and are rinsed off, and after which the surface of the photoresist layer of the master plate is provided with a relatively thin metal layer.

15. A method for fabricating a stamper plate, wherein the stamper plate is fabricated by a galvanic process as a negative copy of a master plate according to any one of claims 1-4.

16. A method for fabricating an optical storage medium, wherein the optical storage medium is fabricated by an injection molding process with a stamper plate according to claim 5.